

DOCUMENT RESUME

ED 288 304

EC 200 775

TITLE Evaluating Service Programs for Infants, Toddlers and Their Families: A Guide for Policymakers and Funders.

INSTITUTION National Center for Clinical Infant Programs, Washington, DC.

REPORT NO ISBN-0-943657-12-1

PUB DATE Jun 87

NOTE 13p.; For a related document, see EC 200 776.

AVAILABLE FROM National Center for Clinical Infant Programs, 733 Fifteenth St., NW, Suite 912, Washington, DC 20005.

PUB TYPE Guides - Non-Classroom Use (055) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS *Child Development Centers; *Disabilities; *Evaluation Methods; Formative Evaluation; Outcomes of Education; Outcomes of Treatment; *Preschool Education; *Preschool Evaluation; Program Costs; Program Effectiveness; *Program Evaluation; Summative Evaluation

ABSTRACT

The booklet briefly reviews and illustrates the kinds of evaluation efforts funders and policymakers may reasonably expect from providers of services to handicapped infants and their families. It outlines the aims and characteristics of (1) outcome evaluations to determine the effectiveness of service programs and (2) process evaluations to describe the actual activities of service programs and their relations to program goals and objectives. It also suggests ways that funders of service programs can encourage and support providers in undertaking evaluations that will yield information crucial to decision making. Descriptions of evaluation practices employed by three actual programs are included to illustrate the methods and benefits of conducting such program evaluations. (VW)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED288304

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it.
☐ Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Emily Schrag

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

Evaluating Service Programs

for Infants, Toddlers and Their Families

A Guide for Policymakers and Funders

June 1987



National Center for Clinical Infant Programs

EC200775

This publication was prepared by the Program Evaluation Task Force of the Research Facilitation Committee of the National Center for Clinical Infant Programs. Support for development, production and distribution was provided by the A.L. Mailman Family Foundation.

NCCIP Program Evaluation Task Force
Jeree Pawl, Ph.D. (Chair)
Acting Director, Infant-Parent Program
San Francisco General Hospital
University of California
San Francisco

Kathryn Barnard, Ph.D.
Professor of Nursing
University of Washington

Anneliese Korner, Ph.D.
Professor (Research) of Psychiatry and the Behavioral Sciences
Stanford University School of Medicine

David L. Olds, Ph.D.
Assistant Professor, Department of Pediatrics
The University of Rochester Medical Center

Sally Provence, M.D.
Senior Research Scientist
Yale Child Study Center

Victoria Seitz, Ph.D.
Research Scientist, Department of Psychology
Yale University

Jack P. Shonkoff, M.D.
Associate Professor of Pediatrics
University of Massachusetts Medical School
Worcester, Massachusetts

Karl R. White, Ph.D.
Co-Director, Early Intervention Research Institute
Utah State University
Logan, Utah

Emily Schrag, M.S.W.
Associate Director for Publications and Public Policy
National Center for Clinical Infant Programs
Washington, D.C.

Eleanor S. Szanton, Ph.D.
Executive Director
National Center for Clinical Infant Programs
Washington, D.C.

ISBN 0-943657-12-1

Introduction

Policymakers in the voluntary, corporate and public sectors have begun to support a growing array of services designed to encourage the healthiest possible development of infants and toddlers in the first three years of life. The state of the art in assessment, diagnosis and intervention with this population advances constantly; and infants and parents facing ever more complex challenges are seeking appropriate services, particularly services that are family-centered and community based.

Funders and service providers alike recognize that evaluating the programs that serve young children and families is critical if we wish to make our efforts more effective and to allocate resources wisely. Many providers, however, hesitate to undertake even modest evaluation activities—questioning whether the staff time and expertise they can devote to evaluation are likely to produce meaningful, useful information. Policymakers and funders, on the other hand, often lack the guidelines that would help them to know what is reasonable to expect in evaluations by service providers and that would encourage the inclusion of adequate resources in program budgets to accomplish useful evaluations.

The National Center for Clinical Infant Programs, a non-profit organization concerned

with infant health, mental health and development, is aware of the many demands on service providers but also recognizes the importance of evaluation efforts to progress in the field of work with young children and families. A National Center task force on program evaluation decided that two publications might be useful.

- The first, *Charting Change in Infants, Families and Services* is addressed to practitioners and administrators. It suggests that all programs serving young children and families can and should engage in evaluation. It discusses and illustrates steps that service providers can take, even with severely limited time and resources, to devise evaluation strategies that reflect the actual work of the program and that are likely to provide information needed for program improvement.

- This booklet, *Evaluating Service Programs for Infants, Toddlers and Their Families*, reviews and illustrates more briefly the kinds of evaluation efforts funders and policymakers may reasonably expect from service providers. It also suggests steps that funders themselves can take: (1) to encourage meaningful evaluation initiatives and (2) to foster the use of evaluation findings to enhance the healthy development of young children and the well-being of their families.

Program Evaluation: Answering Key Questions

Over the past twenty years, studies of service programs designed to enhance the development of children of pre-school age and younger have found important positive impacts on children with a variety of handicapping conditions as well as on children living in disadvantaged environments (Zigler (1983) Greenspan and White (1985.) These research findings have been extremely important in shaping the strategies employed to express our society's commitment to the well-being of young children and families. One does not, however, "research" whether babies should have adequate nutrition, decent housing, appropriate health care and a loving environment. These are not research questions, but rather issues of basic social philosophy.

Good research always suggests new questions. Knowing that programs to enhance the development of infants and toddlers are generally beneficial is not enough. Policymakers and service providers need to know what kinds of services are most helpful to children and families facing particular kinds of risks to healthy development. We need to understand the impact that service programs can make on a wide range of areas of child and family functioning, areas often not studied by earlier investigators. We need to learn more about the importance of key elements in actual service delivery, such as accessibility, and the quality of the relationships between practitioners and participants. We need to examine why some infants and families who participate in programs still fail to make progress or deteriorate in their functioning.

To answer such questions, investigators can conduct studies to determine the *effectiveness* or *outcomes* of service programs. They can also conduct *process evaluations* to describe the actual activities of service programs and their relations to program goals and objectives.

Thoughtful and well-executed outcome and process evaluations both contribute valuable information to work with infants, toddlers and their families. Both approaches are needed to guide policy development, resource allocation,

and the incorporation of promising models into coordinated, comprehensive systems of services. We will outline the aims and characteristics of outcome and process evaluation approaches, describing in greater detail the steps involved in process evaluation.

Outcome evaluations

Researchers conduct *outcome evaluations*, sometimes referred to as efficacy or summative studies, to determine the effects of participation in a service program. In this kind of evaluation, data are collected to decide whether the children and families who participated in a particular intervention are any different than they would have been had they participated in no service program, or if they had participated in an alternative program. In other words: did the program itself make a difference?

If this question is to be answered, one needs some method of estimating the performance of children and families who are similar to the program participants but who received no services or different services. Social science researchers have devised a number of strategies to achieve such comparisons.

- In a **true field experiment**, individuals or families with certain characteristics are randomly assigned either to the program whose efforts are being studied or to a control group that will not receive program services. This procedure, closest to the laboratory model of research, helps to rule out alternative explanations for the results observed. It is also possible to compare alternative forms of an intervention program or to compare an innovative program with a standard model of service. Participants will still be assigned randomly, but no one will be unserved.

"Quasi-experimental" research designs have been identified that attempt to approximate the conditions of true field experiments while

recognizing the ethical and practical complexities of simultaneously serving and studying young children and families. Examples of quasi-experimental designs include:

- **A time lag design**, which can be used by a program that has been discontinued, or by a program with a waiting list. In the first instance, a control group is selected from people who would meet the criteria for service had the program continued. In the second instance, participants are recruited and basic information gathered before program services begin.

- **Nonequivalent control group designs**, in which other individuals, groups or even whole communities are studied as "comparison" rather than as "control" groups, typically matched on variables such as sex, race, or social status.

Additional sources of data may be used to complement experimental or quasi-experimental outcome evaluation findings. These data may also be useful indicators for programs that are not currently undertaking formal outcome evaluations but that are trying to identify areas of likely program impact. Such sources include:

- **Data compiled by other agencies** and which may be examined with participant permission, including medical records, (documenting both health status and the use of medical services); school records; marriage, divorce; and birth records; and information on involvement with the criminal justice system.

- **Ratings by others**, which may include teachers' reports of the socioemotional functioning of children who had participated in a program, parents' perceptions of their children, or friends' assessment of families. (Of course, program participants must give permission for such data collection.)

Outcome evaluation strategies are discussed in detail by Campbell and Stanley (1963, 1966); Cook and Campbell (1979), Zigler and Berman (1983); Seitz, Rosenbaum and Apfel (1985) and Price and Smith (1985). They stress the "solid evidence for effectiveness" to be obtained from well-conceived and rigorously executed outcome evaluations. They do not minimize the work involved—designing the evaluation, gathering data and analyzing information may involve as much effort as providing the services. And they emphasize the importance of timing in the conduct of outcome evaluation, suggesting that an outcome evaluation may be most appropriate only after a project has become relatively stable.

Service providers interested in undertaking outcome evaluations will almost always want to collaborate with others beyond existing program staff. Experienced evaluators from nearby colleges and universities may represent the resource most widely available to service providers. Federally funded research, demonstration, outreach or technical assistance projects represent another source of help.

Process Evaluations

Process evaluation has program improvement as its primary aim. It looks at a program's own goals and objectives and then uses whatever methods seem sensible and feasible to measure the degree to which program activities are related to these goals, as well as the degree to which these goals and objectives are actually being achieved. Information from process evaluations should be used to modify service programs and to suggest further areas for evaluation as an ongoing effort. The detailed description that is part of such a process evaluation is invaluable for replication of a program.

Features of a well-designed and executed process evaluation would also be part of an efficacy evaluation. They include:

1. A clear statement of specific goals and objectives for the program as a whole and of individual objectives for each participating child and family;
2. Detailed, systematic record-keeping on each child and family;
3. Clear description of the program, including estimates of cost;
4. A well-articulated rationale describing how program activities are expected to achieve specific objectives;
5. Description of the population served, in quantitative and clinical terms;
6. Description of the institutional and community context in which the program operates and families live;
7. Monitoring of the extent to which the program was actually carried out as planned, including description of the service providers' interaction with each individual child and parent;
8. Identification of those children and families who make progress and those who do not;
9. Identification of negative side effects of the program.

Process Evaluation for Service Providers

All service providers should be engaging in some form of ongoing process evaluation, whether or not they are ready for a formal outcome evaluation. A program's own staff can design and implement ongoing record-keeping activities that not only keep the program accountable to families and sponsors but that also suggest avenues for program improvement. Process evaluation activities can also supply detailed information about areas of unmet need and suggest strongly the areas of child and family functioning in which the program is making an impact.

How this can happen will be discussed as the steps in process evaluation are described and examples of fruitful process evaluations are offered.

STEP 1 Clarifying goals and objectives

The clear statement of goals and objectives may be the most important step in any process evaluation. All program staff should be involved in the process of formulating or reviewing a statement of the programs' mission. Input from consumers of service—parents and families—should be sought as well.

In articulating objectives and goals for programs and participant, service providers need to recognize that many factors interact in the development of the young child and family.

Thus, a program serving infants and toddlers with cerebral palsy may choose to focus not only on the child's own cognitive and motor skills but also on the interaction between the child and his parents and siblings. In order to plan intervention approaches that are appropriate, the provider will want to understand something of the strengths and vulnerabilities of each family member, how the family works as a unit, the sources of support parents can count on, and stresses that must be faced. These are all issues which interventions may address. When such a program looks at the

progress of participating families over time, staff may want to know how siblings are doing in school, how marriages are faring, and attitude of grandparents. These are all areas in which the program may have had a positive impact.

STEP 2 Articulating the conceptual underpinning of intervention approaches

Practitioners working with infants, toddlers and their families should be able to articulate to themselves, to funders and to consumers the conceptual link between an intervention approach and the program's goals and objectives for the particular population it is serving.

For example, staff of a program designed to encourage the healthy development of premature infants should be aware of the research that suggests that a responsive caretaking environment is very important to such development. They should also know that the behavior of premature infants is often difficult for parent to interpret. Program staff may then decide that to promote the goal of mutually satisfying parent-infant interaction, they will work to interpret the meaning of premature infants' behavior to their parents, and to help parents to respond appropriately. Appropriate parental responses should, in turn, help the babies to thrive. The linkages between each part of the program make sense in the light of current research, and staff should be able to articulate these linkages.

In an upstate New York program, nurses visited adolescent, unmarried or low-income first-time mothers and their families beginning in late pregnancy and continuing through the second year of life. Overall goals of the program were to improve fetal growth and development, to improve infant health and development and to improve the life course development of mothers. Program staff specified nine major objectives designed to achieve these goals.

Home visit report forms, filled out by the nurses after each visit, were designed to reflect the objectives of the program and to reinforce them with staff on a daily basis. Additionally, nurses used computer forms to summarize their accomplishments at periodic intervals during the course of their work with each individual family. Where little or no success was noted, the nurses were asked to explain, in their judgment, why the program had not worked.

One of the program's objectives was to improve the health habits of pregnant women in the program—to reduce smoking, drinking and drug use among expectant mothers, and to improve their diet and weight gain. In the course of reporting on impediments to progress, nurses noted that some young pregnant women were so preoccupied with their own emotional adaptation to pregnancy that discussions of smoking, diet and weight simply did not register. In other instances, women's friends or family members displayed poor health habits themselves and, directly or indirectly, challenged the credibility of the nurses' advice. Some women lacked money to buy food or a place to cook or store it, and found themselves hard put to follow through with the nurses' advice to eat a more balanced diet.

Each type of problem led to a different strategy. Nurses made efforts, for example, to acknowledge and respond appropriately to women's emotional needs, so that health issues could be raised in the context of the woman's emotional adaptation. Where indicated, nurses could also find other community resources to meet the physical or material impediments to appropriate diet. Specifying program objectives and evaluating progress toward them through specific nurse activities allowed staff to identify problems promptly and to revise the program plan to respond more appropriately to individual family needs.

For more information about the Perinatal Early Infancy Project, contact:
David L. Olds, Assistant Professor
University of Rochester Medical Center
Department of Pediatrics
Box 777, 601 Elmwood Avenue
Rochester, NY 14642

STEP

3 Collecting data

What funders and policymakers need most to know about a service program for young children and families is what services were *actually delivered* during a given period of time. At a minimum, staff should be able to say how many people were seen, for how long, and how intensively—for example, "We saw 250 infant-and-mother pairs this year; we saw most of them for 5 visits; we saw ten of them for 20 visits." The services actually delivered can then be compared to the services planned: did some, or many families require more frequent services than anticipated? Did others fail to keep scheduled appointments or drop out of the program?

For purposes of process evaluation, there is no substitute for detailed individual case records. These document the objectives for each child and family and record exactly what is done to achieve these objectives. Case records describe what happened during each visit, providing basic and essential information about the services received by participants. Improvements in participants' functioning, their responses to service providers, and problems with program execution can all be reported. Whatever check lists or rating scales staff may devise in order to aggregate and analyze data, documentation for such ratings must exist in the case record. Detailed case records also provide data for future investigators, who may be able to ask questions impossible to formulate given the state of the art at the time of the original evaluation.

Participating parents may be particularly helpful in devising relevant and appropriate tools for recording important aspects of child and family life as well as consumer satisfaction with the program.

STEP

4 Looking at data

To look for basic patterns in data, service providers need not have elaborate methods of analysis or equipment, although the increasing availability of personal computers is a boon. One can begin with simple *tallies*: How many families received services in a given period? What were their demographic characteristics? How many

home visits, office visits, phone calls, consultations were made? Did the actual attendance of participants fit the pattern anticipated by program designers? What issues were addressed in these contacts? How did children and families score on whatever assessment measures were used by the program?

One then may look for patterns and trends by *grouping data*. What percentage of all the preterm babies born in a hospital in a given period were seen by the hospital follow-up program? What percentage of the objectives set at the beginning of program participation were achieved by each family in six months? By the end of the family's participation in the program? What were the six most common problems faced by families? In what areas did families tend to make the most change? The least change?

One looks for *correlations*—what factors seem associated with positive change, what factors with persistent difficulties? One looks for *subgroups*—do a small number of children or families share characteristics that seem associated with certain strengths or that seem to require a highly specialized approach? One also looks for *unanticipated good outcomes*—did families in the program move to better neighborhoods? Plan for the births of future children?

STEP

5 Using information to improve services

Process evaluation, as we have said before, has program improvement as its chief aim. As service providers keep detailed case records, describe and analyze the population they serve and the clinical approaches they use, and observe carefully the changes that occur in infants and families, they must also translate the knowledge gained into improved practice.

As program staff, administrators and consumers of services look together at process evaluation findings, ideas are likely to occur for program improvement along a range of dimensions.

- *Information about the participants served may suggest outreach efforts for those segments of the target population not using the service.* For example, would home visits or transportation to the clinic be likely to increase the participation of families of high risk infants who currently do

When a Massachusetts early intervention program for disabled infants and toddlers was faced simultaneously with increasing demands for service, limited resources and staff concern about the appropriate mix of service being delivered, program administrators engaged an independent evaluator to assess the program's service model and organizational structure. The evaluator conducted a relatively simple client satisfaction survey and a series of interviews with staff members. Three major components of the early intervention program (which is based in the community and affiliated with a university hospital) were examined critically: home-visiting, center-based group activities, and hospital-based clinic services.

Virtually all parent respondents to the client questionnaire identified home-visiting as the most crucial element of the early intervention program. At a time when the high cost of home visits was generating pressure to curtail them, the unanimity of parental praise for this service format was a tremendous boost to staff morale.

The parent questionnaire also revealed that large numbers of fathers in both low income and middle income families were interested in participating in home visits if visits could be scheduled in the evening. (The participation of upper income fathers was already high.) In response to this information, the program introduced flexible staff work schedules, and fathers did, in fact, become increasingly integrated into program activities.

For more information, write to:
The Early Intervention and Family Support Program,
Department of Pediatrics
University of Massachusetts Medical School
55 Lake Avenue North
Worcester, MA 01605

not participate in follow-up evaluation programs?

- *Comparing participants who seem to be responding to certain program approaches with those who are not responding may lead to a better individualization of services.* For example, some families of infants with disabilities may welcome the focused attention of professionals during home visits while others would find their needs better met in a center-based program that offered opportunities for more informal contact with other families.
- *Process evaluation may also spotlight a particular community agency or group of professionals with whom better coordination is needed.* For example, a study of sources of referral to the program may reveal a need to educate private physicians about the program's services and to provide them with information about their patients' progress.
- *Evaluation may suggest specific areas in which staff need further training to be more effective, thus making possible a more targeted use of scarce in-service training resources.*

STEP 6 Communicating to the public

Once staff of a service program have completed the first five steps of a program evaluation, they will have a great deal of information to share—with the program's advisory board, with participants, with other agencies, with referral sources, with funders and with the local media. Parents can be particularly effective in this process. The clear descriptions of program goals, objectives and activities that are part of a well-conducted process evaluation can also be tremendously useful for others who wish to replicate program approaches.

The aggregated experiences of service providers in ongoing efforts to serve young children and families are also worth documenting. This information can be disseminated through professional conferences and publications, offering the field of early intervention a brighter mirror of its own richness and diversity.

An early intervention program in the western United States serves a low-income, multi-ethnic, multi-problem population whose infants and toddlers are often at risk for, if not already victims of, severe neglect and abuse. Families are often court referred for assessment, and the immediate issue may be whether protective services involvement is appropriate.

As part of a larger evaluation effort, this program decided to examine its assessment activities. As staff reviewed the objectives they needed to achieve in order to complete each assessment, they realized that it was, first of all, crucial to establish a working relationship with a family in order to proceed with the assessment, which generally involves five or six home visits with each family referred. Given the target population, this was an outcome often hard to achieve, and one of great interest to the agency and its funders.

Agency staff decided to see if they could determine what circumstances were associated with success and failure in meeting the particular objective of establishing a working relationship. They found they were successful in establishing a relationship in 92% of the cases where only an evaluation was being requested. They were successful in only 70% of the cases where the referral was court mandated and the Department of Social Services was involved. They were successful in completing the assessment 100% of the time if two home visits had been completed.

Such details were instructive. Staff learned from examining the records that they could not be shy about addressing the family's negative feelings about the assessment process, and that they would lose the family if every opportunity to acknowledge their anger and dismay were not fully exploited. Studying the detailed notes made on each visit, they learned that efforts to engage the family were successful when workers placed a heavy emphasis on interpreting the negative feelings of the parent, and unsuccessful when such interpretations were less frequent. That piece of information helped therapists focus on difficult, but essential, emotional issues with parents early in the assessment process and told supervisors what needed to be emphasized with trainees. Evaluation confirmed theoretical knowledge and clinical perceptions and ensured that these would be sufficiently emphasized in practice and training.

For more information, write to:
Jeree Pawl, Ph.D.
Acting Director
Infant-Parent Program
San Francisco General Hospital
1001 Potrero Avenue, Ward 95
San Francisco, CA 94110

Approaches for Funders

Funders of service programs for infants, toddlers and their families are in an excellent position to encourage evaluation efforts that are likely to provide meaningful information to program staff, to policymakers and to the field as a whole. Several steps may be useful.

1. Understand the strengths and limitations of different types of evaluation efforts.

As we have suggested, process and outcome evaluations have different aims, and various strategies within each broad category may be employed. Both approaches can provide information useful to policymakers. Process evaluations can document in rich detail the unique characteristics of the particular children, families, and community served by a program, as well as the special elements of a program's outreach, assessment, intervention and referral approaches. Most important, perhaps, process evaluations help providers and funders look at whether the services intended are in fact being delivered and used. Outcome evaluations, particularly those that are longitudinal and measure a range of areas of child and family functioning, can offer solid evidence about the efficacy of various intervention approaches with various kinds of children and families.

2. Separate questions about the efficacy of early intervention approaches from decisions about continued funding of service programs.

Our social commitment to fostering the optimal development of children and families in the

earliest years of life provides the strongest case for funding service programs at the community level. Our current state of knowledge, furthermore, suggests the value of supporting diverse service models in order to individualize approaches to many kinds of infants and parents. Service providers should be required on an ongoing basis to monitor and document their activities, to maintain systematic efforts to improve the content and delivery of services, and to demonstrate consumer satisfaction. The timing of outcome evaluation activities, however, should be related to the stability and resources of the program, not tied to budget cycles.

3. Support adequate funding for research and evaluation.

It has been estimated that corporations in the private sector typically allocate 10-20% of their operating budget for research and evaluation. Service programs for young children and families seldom have funds of any size in their budget for evaluation activities.

Funders of community level programs should make known their willingness to support the costs of process evaluation aimed at program improvement and the cost of well-designed outcome evaluations. Regulations governing federal and state funding, as well as foundation and corporate guidelines, can require that proposals for funding of service programs include clear evaluation plans and anticipated costs in the budget. Proposals can be judged in part on the adequacy of resources allocated for evaluation as well as on the appropriateness of the evaluation plan itself.

It should also be recognized that a financial commitment at a national level is needed for sophisticated longitudinal studies of large populations in order to determine what types of

programs achieve what kinds of outcomes for children and families in particular circumstances. Funders, policymakers, academic researchers and local service providers can all be a part of such an effort.

4. Get involved in program evaluation.

Funders of services for young children and families can do a great deal directly to help local service providers conduct meaningful evaluations

and to use the information obtained. They may be able to offer technical assistance to providers in articulating program goals and objectives and in collecting and analyzing data. They may be able to bring service providers together to share best practices, or to connect service providers with local sources of evaluation expertise. As detailed information on current practice is gathered from service providers in a particular community or area of work with young children, funders are likely to get a sense of new needs and opportunities. Such knowledge can then become the basis for an agenda of future practice, evaluation and research.

Summary

This booklet has described approaches to the evaluation of service programs designed to encourage the healthy development of infants, toddlers and their families. It has outlined the steps that service providers can take toward realistic, appropriate and useful evaluation efforts. It has also suggested the ways that funders of service programs can encourage and support providers in undertaking evaluations that will yield information crucial to decisionmaking.

The staff of the National Center for Clinical Infant Programs is available to provide further information about the evaluation of service programs for infants, toddlers and their families and about other research, policy and practice issues concerning health, mental health and development in the first three years of life. Contact the National Center for Clinical Infant Programs, 733 15th Street, N.W., Suite 912, Washington, D.C. 20005, tel: (202) 347-0308.

References

- Campbell, D.T. and Stanley, J.C. Experimental and quasi-experimental designs for research and teaching. In: Gage, N.L., ed. *Handbook of Research on Teaching*. Chicago: Rand-McNally, 1963.
- Campbell D.T. and Stanley, J.C. *Experimental and Quasi-Experimental Designs for Research*. Chicago: Rand-McNally College Publishing, 1966.
- Cook, T.D. and Campbell, D.T. *Quasi-Experimentation Design and Analysis for Field Settings*. Chicago: Rand-McNally, 1979.
- Greenspan, S.I. and White, K.R. The efficacy of preventive intervention: A glass half full? *Zero to Three*, Vol. V. No. 4: 1-5, April, 1985.
- Price, R.H. and Smith, S.S. *A Guide to Evaluating Prevention Programs in Mental Health*. Rockville, MD: National Institute of Mental Health, 1985.
- Seitz, V., Rosenbaum, L.K. and Apfel, N.H. Effects of family support intervention: A ten-year follow-up. *Child Development*. Vol. 53: 378-391, 1985.
- Zigler, E. and Berman, W. Discerning the future of early childhood intervention. *American Psychologist*, Vol. 38, No. 8: 894-906, August, 1983.



National Center for Clinical Infant Programs
733 15th Street, N.W., Suite 912, Washington, D.C. 20005
(202) 347-0308